

the mean particle diameter of the other inorganic filler 6f-2, the amount of the inorganic filler 6f to be mixed with the insulating resin 6m can be more reliably increased. This arrangement facilitates the film formation (solidification), increases the loadings (mixed amount) of the inorganic filler 6f in the anisotropic conductive film sheet 10 or the anisotropic conductive film forming adhesive 6b, and enables the further reduction in the coefficient of linear expansion of the anisotropic conductive film sheet 10 or the anisotropic conductive film forming adhesive 6b, allowing the operating life to be increased for further improvement of reliability.

(Eleventh Embodiment)

Next, according to a method and apparatus for mounting an electronic component of, for example, an IC chip on a circuit board and an electronic component unit or module of, for example, a semiconductor device in which the IC chip is mounted on the board by the mounting method, according to an eleventh embodiment of the present invention, in order to further ensure the effect of the ninth embodiment, it is preferable to provide the inorganic filler 6f to be mixed with the insulating resin 6m by at least two types of inorganic fillers 6f-1 and 6f-2, which have a plurality of different mean particle diameters, make one inorganic filler 6f-1 out of at least two types of

inorganic fillers have a mean particle diameter exceeding 3  $\mu\text{m}$  and make the other inorganic filler 6f-2 out of at least two types of inorganic fillers have a mean particle diameter of not greater than 3  $\mu\text{m}$ . As a concrete example, an inorganic filler having a mean particle diameter of 0.5  $\mu\text{m}$  and an inorganic filler having a mean particle diameter of 2 to 4  $\mu\text{m}$  are employed.

(Twelfth Embodiment)

Next, according to a method and apparatus for mounting an electronic component of, for example, an IC chip on a circuit board and an electronic component unit or module of, for example, a semiconductor device in which the IC chip is mounted on the board by the mounting method, according to a twelfth embodiment of the present invention, based on each of the aforementioned embodiments, it is acceptable to provide the inorganic filler 6f to be mixed with the insulating resin 6m by at least two types of inorganic fillers 6f-1 and 6f-2, which have a plurality of different mean particle diameters, and constitute one inorganic filler 6f-1 of the larger mean particle diameter out of at least two types of inorganic fillers by a material identical to that of the insulating resin 6m, producing a stress alleviating effect. As a concrete example, an inorganic filler having a mean particle diameter of 0.5  $\mu\text{m}$  and an inorganic filler having a mean

particle diameter of 2 to 4  $\mu\text{m}$  are employed.

According to this twelfth embodiment, the stress alleviating effect can be produced in addition to the operative effect of the ninth embodiment by virtue of the arrangement that the one inorganic filler 6f-1 of the larger mean particle diameter is made of the material identical to that of the insulating resin 6m and the integration of the inorganic filler 6f-1 of the larger mean particle diameter with the insulating resin 6m when a stress is exerted on the insulating resin 6m.

(Thirteenth Embodiment)

Next, according to a method and apparatus for mounting an electronic component of, for example, an IC chip on a circuit board and an electronic component unit or module of, for example, a semiconductor device in which the IC chip is mounted on the board by the mounting method, according to a thirteenth embodiment of the present invention, based on each of the aforementioned embodiments, it is acceptable to provide the inorganic filler 6f to be mixed with the insulating resin 6m by at least two types of inorganic fillers 6f-1 and 6f-2, which have a plurality of different mean particle diameters, and make one inorganic filler 6f-1 of the larger mean particle diameter out of at least two types of inorganic fillers softer than the epoxy resin of the insulating resin 6m, producing a stress